

**No. 614,056.**

**Patented Nov. 8, 1898.**

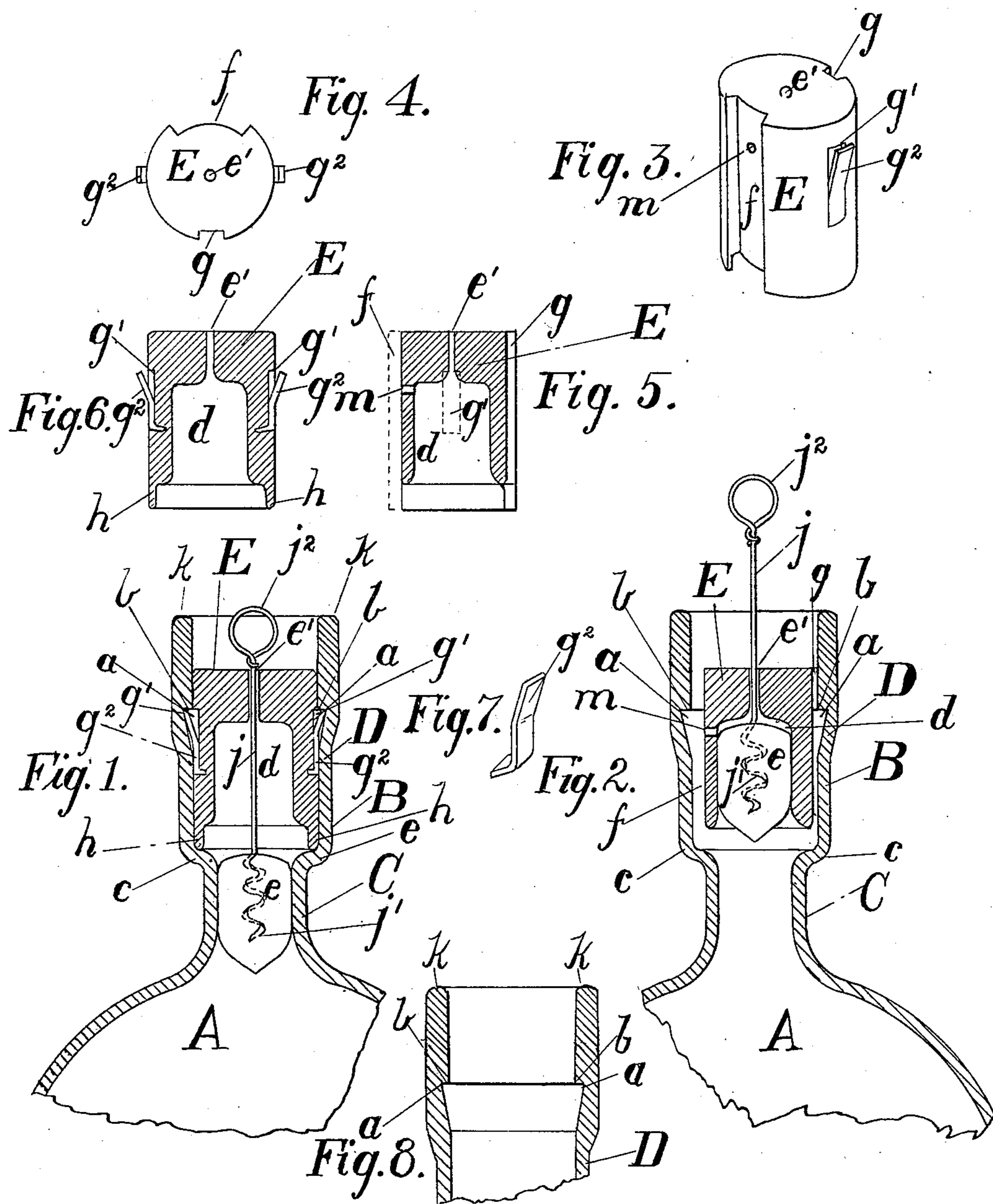
**A. LAMONTAGNE, JR.**

**BOTTLE STOPPER.**

(Application filed Jan. 5, 1898.)

(No Model.)

**2 Sheets—Sheet 1.**



WITNESSES:

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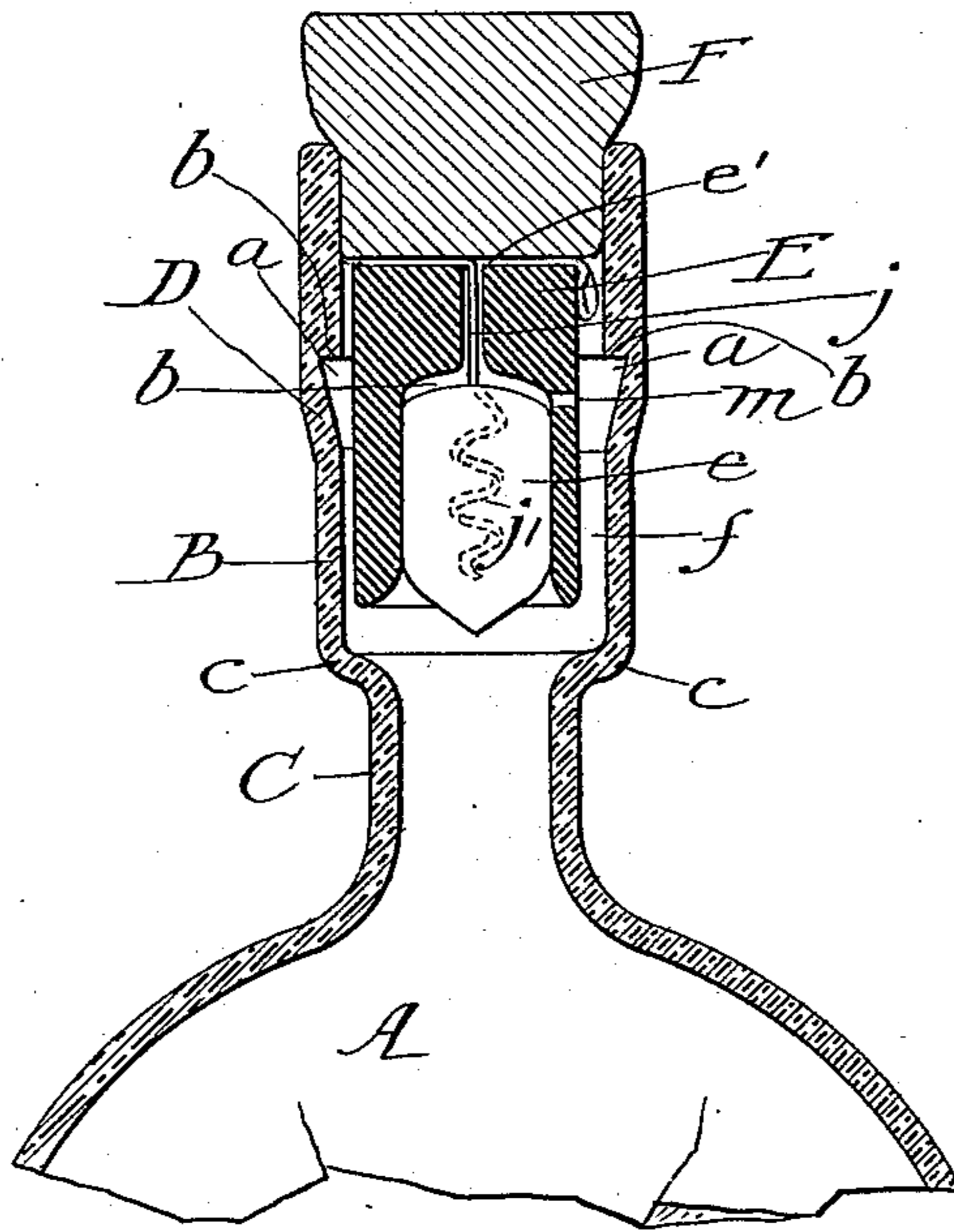
A. LAMONTAGNE, JR.  
BOTTLE STOPPER.

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(No Model.)

2 Sheets—Sheet 2.

Fig. 9.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ALEXANDER LAMONTAGNE, JR., OF CHICAGO, ILLINOIS.

## BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 614,056, dated November 8, 1898.

Application filed January 5, 1898. Serial No. 665,657. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER LAMONTAGNE, Jr., of the city of Chicago, in the State of Illinois, have invented a new and useful  
5 Improvement in Bottle-Stoppers, of which the following is a specification.

My invention relates to improvements in bottle-stoppers; and it consists particularly in providing a cork or stopper which can be  
10 inserted in the neck of the bottle to prevent the flow of the liquid, but which when once withdrawn cannot be again inserted in that part of the neck of the bottle where it was originally placed.

15 The object of my invention is to provide a device so arranged that when the bottle has once been filled and emptied it cannot be re-filled without it being apparent that the bottle has once been emptied of its original contents. I attain this object by the mechanism  
20 illustrated in the accompanying drawings, in which—

Figure 1 shows a sectional view of the neck of a bottle with a cork inserted in the contracted portion of the neck. Fig. 2 shows a  
25 sectional view of the bottle with the cork drawn up within the cavity formed within the plug. Fig. 3 shows a perspective of the plug, showing the groove formed therein for the air-vent and the channel for the outflow of the  
30 liquid. Fig. 4 shows a top view of the plug with the aperture therein for the insertion of the wire. Fig. 5 is a view of the plug in section, showing the air-vent and channel for the  
35 outflow of the liquid. Fig. 6 is a section of the plug, taken through the center of the spring-catches on the sides thereof. Fig. 7 is the detail of the spring-catch. Fig. 8 is a section of the mouth of the bottle, showing  
40 the circular groove in the neck. Fig. 9 shows a sectional view of the bottle with the cork drawn up within the cavity formed within the plug and the upper stopper or cork inserted in the mouth of the neck of the bottle,  
45 the flexible wire or cord being pressed down on the top of the plug.

Similar letters refer to similar parts throughout the several views.

50 In the drawings, A represents a bottle; B, the neck of the bottle, said neck having a lower and contracted portion C and the upper and enlarged portion D. The upper portion

D of the neck of the bottle has in it a circular groove *a*, extending all around the neck of the bottle in such manner as to form a square  
55 shoulder *b* inside the neck of the bottle. The plug E is made, preferably, of glass, but may be made of metal or other suitable material, and said plug is so formed as to fit into the upper part of the neck of the bottle and against  
60 the shoulder *c*, formed by the contraction of the lower part of said neck. The plug E is hollowed out on the inside in such a manner as to form a cavity *d* large enough to receive and hold the cork *e*. In the upper portion of  
65 the plug E is cut an aperture *e'*. In one side of the plug E is formed the wide groove *f*, and on the opposite side of the plug E is cut the smaller groove *g*. Each side of the plug E is recessed at *g'* to receive the spring-catches *g*<sup>2</sup>.  
70 The plug E is flanged, as shown at *h h*, which flanges rest upon the shoulder *c* in the neck of the bottle. The flanges *h h* are cut away at the grooves *f* and *g*. The cork or stopper  
75 *e* may be made of cork or other suitable material and is preferably rounded off, so that the parts will not catch on any of the projections in the plug E. These projections are also rounded, so as not to obstruct said stopper when withdrawn from the contracted portion  
80 of the neck C. The wire *j* is made of aluminium or any highly-flexible material and is attached to the cork in any suitable manner, but preferably by means of a corkscrew *j'*, to which the wire *j* may be brazed or attached  
85 in any suitable manner.

The operation of my device is as follows: After the bottle has been filled the cork *e* is placed within the contracted part of the neck of the bottle. The wire *j* being straight to  
90 its extremity is passed through the aperture *e* in the plug E, and the plug E is then forced into the enlarged part of the neck of the bottle until the flanges *h h* press against the shoulder *c*. The spring-catches *g*<sup>2</sup> *g*<sup>2</sup> being  
95 placed in the recesses *g'* are compressed by being held against the sides of the neck of the bottle until they reach the circular groove *a* in the neck of the bottle, when the compression being released the catches *g*<sup>2</sup> spread  
100 themselves and engage with the shoulder *b*, formed by the groove *a*. These spring-catches thus hold the plug E firmly in its place in the neck of the bottle, so that it can-

not be removed. In addition to these catches or in place of them cement may be used to attach the plug firmly to the neck of the bottle. The sides of the enlarged portion of the neck D of the bottle extend upwardly, as shown at *k*, above the top of the plug E, and the flexible wire *g* is then bent, as shown at *j*<sup>2</sup>, so as to form a handle. This wire being highly flexible is then pressed down upon the top of the plug E and an ordinary cork F inserted in the mouth of the neck of the bottle over the top of the plug E.

When it is desired to take the liquid out of the bottle, the covering top cork is withdrawn from the mouth of the neck of the bottle and the cork *e* removed from the contracted portion C of the neck of the bottle and pulled up into the cavity *d* in the plug E, where the cork is held tightly between the walls of said cavity *d*. The bottle being then tilted, the liquid will flow out through the channel formed by groove *f* on the side of the plug E, the air-vent *g* permitting the air to enter the bottle to assist in forcing the liquid out. There is an aperture *m* from the cavity *d* into the channel formed by the groove *f* in the plug which permits the air above the cork or stopper *e* to escape as the cork is drawn up into said cavity.

It is evident that the cork *e* being tightly held between the walls of the cavity *d* in the plug E and there being no other connection thereto than the flexible wire *j*, and this flexible wire not being sufficiently rigid to withstand force enough without flexing to push the cork or stopper *e* down into the contracted portion C of the neck of the bottle, the contracted portion C of the neck of the bottle cannot be again stopped by the cork or stopper C. The aperture *e'* in the top of the plug E is so small that no other instrument can be inserted alongside the wire *j* to force the cork *e* again into the contracted part of the neck of the bottle. When the contents of the bottle have flowed out therefrom, if the bottle is refilled the cork *e* cannot be again forced down into the contracted portion of the neck C, nor can said contracted portion of the neck be stopped by any other means, and therefore when the bottle is tilted the liquid will flow out, thus showing that the bottle has been refilled and making detection of counterfeits sure.

The plug E being of glass, metal, or other suitable material and being tightly held in the neck of the bottle by the spring-catches or by cement, or by both the catches and cement, cannot be removed from the neck of the bottle without destroying the plug and thereby breaking the neck of the bottle. Said neck is made preferably thin, so that it will not resist the force necessary to destroy or remove the plug without said neck breaking.

When it is not desired to use the whole of the contents of the bottle at one time, the top cork F may be inserted in the mouth of the

neck of the bottle to prevent the liquid from flowing out.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a bottle-stopping device, the combination of a plug adapted to be irremovably inserted in the neck of a bottle; said plug having therein a groove or channel running lengthwise thereof to permit the outflow of liquid; said plug being hollowed out on the underside thereof to form a housing to receive and hold a stopper; of a stopper underneath said plug, adapted to fit into and close a contracted part of the neck of the bottle beneath said plug, and to be held firmly in the housing formed in said plug; and a flexible wire or cord attached to said stopper and extending through and beyond said plug, whereby said stopper may be drawn up into said housing in said plug and tightly held therein, but cannot be forced downward into the contracted part of the neck of the bottle, substantially as described.

2. In a bottle-stopping device, the combination of a plug adapted to be irremovably inserted in the neck of a bottle; said plug being hollowed out on the underside thereof to form a housing to receive and hold a stopper; of a stopper, adapted to fit into and close a contracted part of the neck of the bottle beneath said plug, and to be held firmly in the said housing formed in said plug; said plug having on the outer side thereof a channel or groove lengthwise of said plug to permit the outflow of the liquid, so arranged that said stopper, when in said housing, cannot be reached through said groove or channel; and a flexible wire or cord attached to said stopper, and extending through and beyond said plug, whereby said stopper may be drawn up into said housing, and tightly held therein, but cannot be forced downward into the contracted part of the neck of the bottle; substantially as described.

3. In a bottle-stopping device, the combination of a plug adapted to be irremovably inserted in the neck of a bottle; said plug being hollowed out on the underside thereof to form a housing to receive and hold a stopper; of a stopper, adapted to fit into and close a contracted part of the neck of the bottle beneath said plug, and to be held firmly in the said housing formed in said plug; said plug having on its outer side a channel or groove lengthwise of said plug to permit the outflow of the liquid, and also a groove for an air-vent; both of said grooves being so arranged that said stopper, when in said housing, cannot be reached through either of said grooves; and a flexible wire or cord attached to said stopper, and extending through and beyond said plug, whereby said stopper may be drawn up into said housing and tightly held therein, but cannot be forced downward into the contracted part of the neck of the bottle, substantially as described.

4. The combination of a hollow plug having on the outer side thereof and lengthwise thereof, a channel or groove to permit the outflow of liquid, and a groove for an air-vent; said plug being adapted to be irremovably inserted in the neck of a bottle; of a stopper underneath said plug, and adapted to be removably inserted in a contracted portion of the neck of said bottle; a flexible wire or cord attached to said stopper, and extending through and beyond said plug, whereby said stopper may be withdrawn from the contracted portion of the neck of said bottle into the hollow portion of said plug; said stopper being adapted to be tightly held in the hollow portion of said plug by the friction of the adjacent parts; of a bottle having a neck with a contracted portion to be closed by said stopper, and an enlarged portion to receive and hold said plug; substantially as described.

5. The combination of a hollow plug, having on the outer side thereof and lengthwise thereof, a channel or groove to permit the outflow of liquid, and a groove for an air-vent; said plug being adapted to be irremovably inserted in the neck of a bottle; of a stopper underneath said plug and adapted to be removably inserted in a contracted portion of the neck of said bottle; a flexible wire or cord attached to said stopper and extending through and beyond said plug, whereby said stopper may be withdrawn from the contracted portion of the neck of said bottle into the hollow portion of said plug; said stopper being adapted to be tightly held in the hollow portion of said plug by the friction of the

adjacent parts; of a bottle having a neck with a contracted portion to be closed by said stopper, and an enlarged portion to receive and hold said plug; and means for preventing the outflow or exposure of the liquid when the said stopper is removed from the contracted portion of the neck of the bottle; substantially as described.

6. The combination of a hollow plug, having on the outer side thereof and lengthwise thereof, a channel or groove to permit the outflow of liquid, and a groove for an air-vent; said plug being adapted to be irremovably inserted in the neck of a bottle; of a stopper underneath said plug and adapted to be removably inserted in a contracted portion of the neck of said bottle; a flexible wire or cord attached to said stopper and extending through and beyond said plug whereby said stopper may be withdrawn from the contracted portion of the neck of said bottle into the hollow portion of said plug; said stopper being adapted to be tightly held in the hollow portion of said plug by the friction of the adjacent parts; of a bottle having a neck with a contracted portion to be closed by said stopper, and an enlarged portion to receive and hold said plug; said enlarged portion of the neck of said bottle having a circular groove with a square shoulder therein; and spring-catches on said plug to engage with said shoulder; substantially as described.

ALEXANDER LAMONTAGNE, JR.

Witnesses:

JESSE COX,

ARTHUR M. COX.